

2013 Bayou Macon Cutoffs Aquatic Vegetation Control Plan

LDWF, Inland Fisheries

The three Bayou Macon Cutoff Lakes are included in this plan. These lakes are impounded oxbows of Bayou Macon, formed during the channelization of Bayou Macon for flood control and drainage improvement. These lakes are very similar in nature with vegetation and management issues being nearly identical. The Franklin Parish Police Jury is the Lake Authority for all three lakes. The lakes are numbered in order from south to north, as shown in the Appendix.

Bayou Macon Cutoff #I (Liles Cutoff)

1. Waterbody type – impounded oxbow
2. Age and condition of control structure (if applicable) – none
3. Type of control structure – 4 ft. x 4 ft. concrete drop box spillway only (Figure 1).



Figure 1. Spillway on Macon Cutoff I.

4. Water level range (MSL) – pool stage unknown, annual fluctuation < 2.5 ft.
5. Surface area range – 320 acres, no significant change with fluctuation.
6. Average depth – 9 ft.
7. Watershed ratio – approximately 10:1
8. Drawdown potential of structure – none
9. Waterbody Board or Lake Commission – Franklin Parish Police Jury
 - a. Primary contact information – Police Jury phone (318) 435-9420
 - b. Procedure for spillway openings – n/a

DRAWDOWN HISTORY				
Date Opened	Date Closed	Purpose	Results	Issues
No water control structure. No drawdowns conducted.				

Significant stakeholders:

- Local Farmers
- Anglers/public
- Property/camp owners

Needs and concerns of stakeholders:

- Farmers – sufficient water for agricultural irrigation
- Anglers/public – fishing and recreation
- Property/camp owners – stable water levels, nuisance vegetation control

History of aquatic vegetation complaints:

Aquatic vegetation complaints have been minimal on this lake. Water hyacinth *Eichhornia crassipes* and alligator weed *Alternanthera philoxeroides* have reached nuisance levels occasionally in the past and have been treated promptly. The majority of complaints have been from shoreline property owners, of which there are very few. The Police Jury has also made infrequent requests for vegetation control.

Controversial issues on the lake:

None documented.

Aquatic Vegetation Status:

January, 2013:

Alligator weed and primrose are present, though scarce along much of the shoreline. A minimal amount of water hyacinth was also documented. Total combined coverage is less than 5 acres. Routine herbicide treatments have prevented any nuisance vegetation from reaching a problematic amount.

Coverage and status of beneficial plant species and any considered or implemented efforts to re-establish:

Alligator weed and other shoreline emergent species provide shoreline cover for fish and are currently at desirable levels.

Projected vegetation estimates for 2013:

Herbicide treatments in 2012 along with numerous frosts over the winter have reduced floating and emergent vegetation to minimal levels. No problems with nuisance vegetation are anticipated. Alligator weed is expected to remain as a narrow fringe along much of the shoreline (approx. 10 acres) and water hyacinth coverage should not exceed 10 acres total.

Limitations:

- Factors that may limit the effectiveness of chemical, mechanical, or biological control methods for the aquatic plant problems found in the waterbody:
 - Lake drawdowns are not an option due to the lack of a water control structure
 - Subject to infrequent flooding from Bayou Macon
- Regulatory or public factors or anything else that may limit the ability of LDWF to control aquatic plant problems in the waterbody:
 - Irrigation may preclude use of certain herbicides with irrigation restrictions
 - Cotton growing area - waiver required from LDAF for application of 2,4-D herbicide from March 15 – September 15.

Past Control Measures (Cutoffs I,II, and III) –

Historic: Applications of commonly used aquatic herbicides (2,4-D, diquat dibromide, and glyphosate at the respective gallons-per-acre rates of 0.5, 1.0, and 0.75) have been made by LDWF in custom spray boats. In the past, applications were made when infestations of nuisance vegetation became abundant in the lake. The majority of these efforts were for control of water hyacinth and alligator weed.

Recent: There have been no recent changes in controlling nuisance vegetation on this lake due to adequate control provided by routine spray boat applications. Cutoffs I and III have received the majority of herbicide applications, with cutoff II rarely requiring any vegetation control.

2012

All vegetation control on the Bayou Macon Cutoffs in 2012 consisted of routine herbicide applications, of which only Cutoff I required treatment. See Table 1 (below) for a summary of acres sprayed for various species of vegetation. Multiple treatments were made for alligator weed control, mostly around camps and homes.

Table 1. Acres of vegetation sprayed On Bayou Macon Cutoff I in 2012.

Species	Acres
Alligator weed	102
Pennywort	7
Water Hyacinth	17
Water Primrose	13

Recommendations:

At least one assessment by an LDWF spray crew will be made in spring, summer, and fall to determine the need for a maintenance herbicide application on each of the lakes, and also to determine presence of any new invasive species. All water hyacinth or any other species determined to be a serious threat to the lake (i.e. common salvinia *Salvinia minima*, giant salvinia *S. molesta*) will be treated immediately with the recommended herbicide and surfactant combination. Water hyacinth will be treated with 2,4-D at 0.5 gallons/acre outside of the 2,4-D waiver period and glyphosate at 0.75 gallons/acre between March 15 – Sept. 15. Salvinia will be treated with a mix of 0.75 gallons/acre of glyphosate and 0.25 gallons/acre of diquat with 0.25 gallons/acre of Aqua King and 8 oz of Thoroughbred. Any aquatic vegetation in proximity of the spillways will be treated. Alligator weed or other emergent shoreline species will be maintained at a level to provide shoreline cover for fish, but not negatively impacting boating, access, recreation, or wildlife. A general rule will be to maintain it within 10 ft. of the shoreline and to prevent it from completely covering shallow areas or coves. Crews will treat alligator weed with Ecomazapyr (0.5 gal/acre) since each of these lakes are mostly undeveloped and irrigation restrictions are not an issue. Complaints from residents or the Police Jury will be responded to as soon as possible.

Typemap

No type map conducted to date. ne

Bayou Macon Cutoff II (Crocket Point)

1. Waterbody type – impounded oxbow
2. Age and condition of control structure (if applicable) – none
3. Type of control structure – single 36” culvert, spillway only
4. Water level range (MSL) – pool stage unknown, annual fluctuation < 2.5 ft.
5. Surface area range – 150 acres, no significant change
6. Average depth – 9 ft.
7. Watershed ratio – approximately 10:1
8. Drawdown potential of structure – none
9. Waterbody Board or Lake Commission – Franklin Parish Police Jury
 - a. Primary contact information – Police Jury phone (318) 435-9420
 - b. Procedure for spillway openings – n/a

DRAWDOWN HISTORY				
Date Opened	Date Closed	Purpose	Results	Issues
No water control structure. No drawdowns conducted.				

Significant stakeholders:

- Local Farmers
- Anglers/public
- Property/camp owners

Needs and concerns of stakeholders:

- Farmers – sufficient water for agricultural irrigation
- Anglers/public – fishing and recreation
- Property/camp owners – stable water levels, nuisance vegetation control

History of aquatic vegetation complaints:

Aquatic vegetation complaints have been minimal on this lake. Water hyacinth and alligator weed have reached nuisance levels occasionally in the past and have been treated promptly.

Controversial issues on the lake:

None documented.

Aquatic Vegetation Status:

August, 2012

There have been no significant changes in the coverage of vegetation since 2011. Water hyacinth remains minimal and alligator weed is found along the immediate shoreline only and is considered to be at a beneficial amount, providing fish cover.

Coverage and status of beneficial plant species and any considered or implemented efforts to re-establish:

Alligator weed and other shoreline emergent species provide shoreline cover for fish and are currently at desirable levels.

Projected vegetation estimate for 2013:

No significant changes to the vegetation community are anticipated. Total coverage of all nuisance vegetation (alligator weed and water hyacinth combined) is not expected to exceed 5 acres.

Limitations:

- Factors that may limit the effectiveness of chemical, mechanical, or biological control methods for the aquatic plant problems found in the waterbody:
 - Lake drawdowns are not an option due to lack of water control structure
 - Subject to infrequent flooding from Bayou Macon
- Regulatory or public factors or anything else that may limit the ability of LDWF to

control aquatic plant problems in the waterbody:

- Irrigation may preclude use of certain herbicides with irrigation restrictions
- Cotton growing area - waiver required from LDAF for application of 2,4-D herbicide from March 15 – September 15.

Past Control Measures (Cutoffs I,II, and III)–

(See Above) – rarely requires control

Recommendations:

(See Above)

Bayou Macon Cutoff III (Baker's Cutoff)

1. Waterbody type – impounded oxbow
2. Age and condition of control structure (if applicable) – age unknown, fair condition
3. Type of control structure – 4 ft. x 4 ft. manually operated slide gate within 15 ft. x 19 ft. concrete drop box type spillway with (2) 72 inch culverts (Figure 2)



Figure 2. Water control structure for Bayou Macon Cutoff III.

4. Water level range (MSL) – pool stage unknown, annual fluctuation <2.5 ft.
5. Surface area range – 140 acres, no significant change
6. Average depth – 9 ft.
7. Watershed ratio – approximately 10:1
8. Drawdown potential of structure – 7.5 ft. from top of spillway to bottom of slide gate
9. Waterbody Board or Lake Commission – Franklin Parish Police Jury
 - a. Primary contact information – Police Jury phone (318) 435-9420
 - b. Procedure for spillway openings – operated by Franklin Parish Public Works (per personal communication with Public Works officer) under orders of the Police Jury, with supervision and approval by LDWF.

DRAWDOWN HISTORY				
Date Opened	Date Closed	Purpose	Results	Issues
No water control structure. No drawdowns conducted.				

Significant stakeholders:

- Local Farmers
- Anglers/public
Property/camp owners

Needs and concerns of stakeholders:

- Farmers – sufficient water for agricultural irrigation
- Anglers/public – fishing and recreation
- Property/camp owners – stable water levels, nuisance vegetation control

History of aquatic vegetation complaints:

Aquatic vegetation complaints have been minimal on this lake. Water hyacinth and alligator weed have reached nuisance levels occasionally in the past and have been treated promptly. The majority of complaints have been for shoreline property owners.

Controversial issues on the lake:

None documented.

Aquatic Vegetation Status:

August, 2012

There have been no significant changes in the coverage of vegetation since 2011.

Water hyacinth remains minimal and alligator weed is found along the immediate shoreline only and is considered to be at a beneficial amount, providing fish cover. Total coverage of alligator weed is approximately 10 acres, while water hyacinth is currently less than 5 acres.

Coverage and status of beneficial plant species and any considered or implemented efforts to

re-establish:

Alligator weed and other shoreline emergent species provide shoreline cover for fish and are currently at desirable levels.

Projected vegetation estimate for the upcoming year, 2013:

No significant changes to the vegetation community are anticipated. Alligator weed should be confined to the shoreline and a few small shallow coves with total acreage not exceeding 15 acres and water hyacinth coverage is not anticipated to exceed 10 acres.

Limitations:

- Factors that may limit the effectiveness of chemical, mechanical, or biological control methods for the aquatic plant problems found in the waterbody:
 - Subject to infrequent flooding from Bayou Macon
 - Water control structure may not be reliable
- Regulatory or public factors or anything else that may limit the ability of LDWF to control aquatic plant problems in the waterbody:
 - Irrigation may preclude use of certain herbicides with irrigation restrictions
 - Cotton growing area - waiver required from LDAF for application of 2,4-D herbicide from March 15 – September 1.

Past Control Measures (Cutoffs I,II, and III)–

(See Above)

Recommendations:

(See Above)

APPENDIX: Map of Bayou Macon Cutoffs I, II, and III

